1. **6:30 P.M. CALL TO ORDER**

Chair Lane called the September 14, 2011 special meeting of the Thurston County Planning Commission to order at 6:30 p.m. Commissioners provided self-introductions.

**Attendance:** Chair Chris Lane, Commissioners, Christine Spaulding, Bill Jackson, Scott Nelson, Kathleen O’Connor & Liz Kohlenberg

**Absent:** Jennifer Davis, Ed Fleisher & Chris Earle

**Staff:** Jeremy Davis & Andrew Deffobis

**Guests:** Art Starry, Thurston County Environmental Health Department & Laurie Morgan with the Department of Ecology Water Quality

2. **6:31 P.M. APPROVAL OF AGENDA**

**MOTION:** Commissioner O’Connor moved to approve the agenda. Commissioner Spaulding seconded. Motion carried.

It was agreed that the Work Session for Mineral Lands – GMHB Compliance would be taken off the agenda for the evening. Laurie Morgan with the Department of Ecology Water Quality was also added as a guest speaker.

3. **6:31 P.M. PUBLIC COMMUNICATIONS (Not associated with topics for which public hearings have been held.)**

1. **Mark Kelly – 3419 Lynn Court NE Lacey, WA 98516 – Spoke in regard to CAO and additional speakers.**

The official audio is available online at:

[http://www.co.thurston.wa.us/planning/planning_commission/planning_comm_minutes.htm](http://www.co.thurston.wa.us/planning/planning_commission/planning_comm_minutes.htm)

4. **6:34 P.M. WORKSESSION: CAO CARA’s**

**Staff:** Scott Clark, Cynthia Wilson, Jeremy Davis & Andrew Deffobis

**Guest Speakers:** Doug Meyers & Pene Speaks

Mr. Deffobis started with a brief overview of the topic for the evening which is Critical Aquifer Recharge Areas (CARA’s). He then introduced both guest speakers for the evening. The jurisdictional comparison and the draft and current chapter were the handouts to be discussed and were handed out at the last meeting. The CARA of the CAO have several purposes; among them are to protect public health and welfare by safeguarding underground water resources and avoiding or minimizing risks to those. To
identify and protect aquifer recharge areas based on their susceptibility or vulnerability to
contamination, to maintain the surface ground water connection to preserve essential
biological physical and geochemical functions and to sustain aquifers and maintain base
flows for anadromous fish, i.e. salmon and also to maintain water levels in wetlands. An
aquifer recharge area is an area where water hits the ground, infiltrates the ground and
then replenishes the underlying aquifer. Generally speaking, a critical aquifer recharge
area is one that is vulnerable or susceptible to contamination based on underlying
geology or lack of protective areas between the surface and aquifer. A wellhead
protection area is an area surrounding a well or spring where the groundwater flows
toward that well as it's consumed and is susceptible to contamination as well. The maps
and diagrams were then discussed.

The proposal has three different categories of critical aquifer recharge areas. There are
dvour categories in the current code. Currently category four which is low susceptibility
aquifer recharge areas is proposed to be taken out of the chapter. The proposal will
primarily focus on the extreme the high and the moderate susceptibility of categories one,
two and three respectively. These are based on susceptibility to contamination. Category
one critical aquifer recharge areas are areas of rapid recharge, glacial outwash sediments
and there is very little protection from the surface to the underlying aquifer. Category
two areas are a little bit slower to recharge the aquifer still very little protection. Category
three CARA’s get into those that have surface soils that prevent a whole lot of
infiltration.

The planning commission requested copies of the maps and diagrams from staff. The
maps are currently on the planning commission web site.

The proposed chapter is in similar format as previous draft chapters. Permitted uses are
for each category in a table and then standards for specific uses are listed underneath.
The chapter describes when reports are required based on susceptibility or proposed use.
The chapter also spells out treatment or containment options for projects.

Generally, when staff is looking at a project proposal what the language states is that it
would be deemed unacceptable if the project violates some sort of maximum contaminant
level for a contaminant of concern.

Detailed section starting at 00:18:54

Art Starry: And that’s a policy that was developed about 1996 or there about and it was
developed because of concerns in the Scatter Creek aquifer area. And what we were
finding is that it is used primarily to evaluate nitrogen or nitrate contamination associated
with new development. What we were concerned about was that new development with
septic systems can add or will add nitrogen to the ground water and the question was will
it be, will the new development result in pollutions that will either violate the NCL or
how much will it drive up the nitrogen concentration in ground water. State law, it’s a
little bit difficult to navigate sometimes. State law says that you are not supposed to add
any pollution at all well, if you have any sort of development on a property with a
vulnerable aquifer you going to add some level of pollution again nitrogen is the one that we were focusing on because it’s easy to evaluate. There are standards in place and it is fairly easy to test for. And so when we review this with the board of health the question was that we recognize that some level of pollution is going to be associated with the development but how much is too much and that’s where this concept of a similar capacity came up. And that’s the difference between, well what a similar capacity is is the difference between the current concentration of, we will use nitrogen as the example, nitrogen or nitrate in ground water and the maximum contaminate level of ten.

Andrew Deffabis: Parts per million.

Art Starry: Parts per million or milligrams per liter. And you will find in most parts of Thurston County it’s below the natural background level and of course it’s kind of hard to know what natural is cause “inaudible” for a long time but it’s below two parts per million or two milligrams per liter. So if we had a background level or current concentration of nitrogen in ground water of two milligrams per liter the similar capacity is the difference between two and ten or eight and then what the policy says is that you can’t reduce that more than ten percent. So that means that new development can’t reduce the or can’t add more than in this case ten percent of eight milligrams or eight tenths of a milligram per liter nitrogen can’t be added to the aquifer as a result of the new development. And again that typically would be septic systems, the other things that would be evaluated would be landscaping practices, if it was an agricultural activity we would be looking at that and so that’s the policy that’s been in place for a number of years now and it was reviewed again with the board of health that was in place at that time.

Chair Lane: How do you figure that out before the development actually goes in?

Art Starry: Well that’s the, and you end up having what you end up doing and I think that Andrew might get to that a little bit but one of the reports that typically takes place for larger developments is the hydrologic assessment. And so the hydrogeologist would be either looking to see if there is historic groundwater information or gathering information water quality information from adjacent land uses or adjacent properties to determine what that background level is. In the case of a community water supply there testing for nitrate a lot. So there would be a lot of information available there. If it’s out in the middle of nowhere then maybe they actually have to go and find some wells, there has been cases actually where they’ve actually had to drill wells to do testing to get that background information and then they go about doing a mathematical analysis remodel to evaluate what the impact of the new development is, so you end up having to look for research that says ok, how much nitrogen does a septic system put out and if we put this many septic systems in what’s going to be the impact to the aquifer. Then you also have to look at what’s the capacity of the soil to remove or bind up or utilize nitrogen’s, maybe plants or something would be looking at taking that out. And then it basically ends up being a big “inaudible” or formula that’s says ok were putting this much in, we think that this much will be taking “inaudible” soils and plants, this much will get into the aquifer does that exceed the similar capacity standard. It’s more sophisticated than that because
you’re talking about the natural system can take things up the velocity of the aquifer how quickly it moves underneath has an impact on how much dilution will take place depending on the chemical you’re talking about whether it mixes well with water or whether it kind of lays as a layer on top all those sorts of different things that Laurie can tell you lots about cause she’s really smart.

Commissioner Jackson: “inaudible”

Art Starry: Would dictate then, are you violating that policy or not? And that’s actually something that our hydro geologist, Nadine Romero, who were very fortunate to have in the County is looking at because this policy is years old we recognize that the formula that’s being, there’s something called the “inaudible” equation which is used to evaluate impacts, the maker’s of that, that’s pretty old. Current three dimensional modeling can give you a much more thorough analysis and that’s the sort of stuff we’re moving into now. We need to update this policy and are we going to have it done you know this week or the next few weeks no but it’s something that I think as you look at the language in this chapter we need to recognize that there are going to be new and better ways probably to do this instead of somehow recognize that that and allow for that in the future. I guess that’s a question.

Jeremy Davis: Well for nitrogen particularly there are health considerations for “inaudible” to that and in drinking water i.e. higher incidences of colon cancer if I’m not mistaken right, blue baby syndrome.

Art Starry: That’s the classic one.

Jeremy Davis: Yeah, the classic one. So there are concerns and reasons why we do this sort of regulation.

Chair Lane: As part of that do you have to make assumptions on, my questions is I mean there is a big difference between putting in a community where nobody fertilizes their lawn and one where the homeowners association decides were going to hire Spring Green and everything in the neighborhoods going to be fertilizes you know eight times a year. And so my question is...

Art Starry: Actually there’s something else in there and it’s kind of eluded to, I’d have to read, I apologize I haven’t had a chance to read through this as much as I would like but there are, the County actually does have policies that deal with something called integrated pest management for large developments and that has to do with trying to manage the use and pesticides and fertilizers so that the impact to water resources is minimized. So trying to get to your question, I guess the concern that sometimes comes up is that there’s not really a good way to police that. So if someone’s concerned about that you are relying on education and outreach to try and get people information to try and get people information so they do the right thing but in practice it’s really hard to control.
Chair Lane: And I’m fine with that I don’t think that we should be dictating people whether they can put fertilizer on their lawn or not.

Art Starry: Yes, and I think what our approach at least in the Health Department’s been that you try to work with the developer to make sure the information’s available and then you try to make sure it get’s handed to the people in the homeowner’s association so they have it so then again we have other education and outreach programs available to, you know so the people, you know we provide information hopefully that are going to behave or act responsibly.

Jeremy Davis: Yeah, I don’t think we’d want a golf course on a really sensitive area.

Art Starry: Well and the thing is well there’s lots of interesting things I could talk about, my old days I used to be the person who worked on a lot of land use permits.

Detailed section ending at 00:26:57

Thresholds for hazardous materials were then discussed. This is where proposals above a certain threshold typically for things that are ignitable, corrosive, reactive or toxic as defined in Washington administrative code. Public water supplies are regularly monitored, hope fully if something bad was happening you would like to intervene before you exceed the maximum contaminant level. So there is follow-up on trying to make sure the requirements associated with new development are followed through. Septic system permits have to be renewed to help assure that they are maintained properly. Septic system code was then discussed.

Commissioner O'Connor asked the following question to Art Starry: A little bit of what I am hearing is that data that goes into your algorithm is going to help your algorithm and sometimes there is better and sometimes not as good data and there's new things coming out that we don't know the timing of and meanwhile we still have the MCL and the assimilative capacity that going to be our guide, is that correct? Is there anything in the way the way that this process happens that if information has been used to model and make some decisions for X proposal and then Q and P come along are you going to be using the same old data or do you have perhaps data that's come in from the other developments?

Art Starry responded saying that that was correct. In practice especially with staff and our hydro geologist we do try to take into account existing development and cumulative impact, but it is a tough question. Especially when you've got multiple developments that's taking place in a short time frame. You're basing your decision on mathematical calculation if the actual impact is something different than that you won’t know that for years. The hydro geologist for the county is building data each time she looks as specific areas. As different areas are looked at the data is further compiled.

Thresholds for hazardous materials were then further discussed as written in the proposed draft CAO. The question was raised about what science we have now that says the
buffers on critical areas, waterfront property etc. are not working and that do we have to change them. Localized issues as with Tumwater’s well and a dry cleaner chemical leak were examples of why further buffers need to be placed in particular areas to protect ground water. The International Fire Code was also brought up as being part of the drive for these regulations. The levels of contaminants now and over the years were requested to provide further information into if the current regulations need to be changed. A request was also made to have Nadine Romero the County’s hydro geologist come to speak. An amendment was discussed in regard to CARA’s 1, 2 & 3 due to further information from the hydro geologist.

Detailed section starting at 01:01:12

Andrew Deffobis: So the well head protection areas on here are designated as the most extreme of the extreme, I would say. So you have within category 1 you have the one year time of travel, five and ten year time of travel outside of that but still within what we consider category 1 is you go back to the soils. Well heads are the most sensitive outside of that but still considered a susceptible soil lacking well head protection area you know there may be some latitude so that’s kind of the approach we took. Again, if that’s not consistent with data or beliefs of what should be in those areas then that’s something that we definitely talk about.

Detailed section ending at 01:01:56

Further specific projects i.e. car refinishing, boat refinishing etc. were discussed. Staff will be meeting with the Environmental Health Department again to bring further information to the planning commission on September 28, 2011 in regards to the CARA categories explanations and entries.

5. **7:55 P.M. STAFF UPDATES**

Mr. Davis provided the following staff updates:

- The noxious weeds chapter was given to the planning commission. It was also noted that the noxious weeds sections of the CAO in chapter 17.15 need to be moved somewhere else since that chapter will no longer apply to all the other uses. Staff has been working with the noxious weed control board on drafting an amendment to the Thurston County Code to make a new chapter 17.30 that would be completely under the noxious weed control board’s authority. The amendments would not come before the planning commission regarding containment areas and such that would be under their control at that time. The planning commission’s role is just to decide whether it needs to be removed from chapter 17.15.

6. **7:55 P.M. CALENDAR**

September 21, 2011 – Commissioner Spaulding will not be in attendance.
7. **7:56 PM ADJOURN**

With there being no further business, Chair Lane adjourned the meeting at 7:56 p.m.

[Signature]

Chris Lane, Chair

Prepared by Carrie Toebbe, Recording Secretary